

Fang Da

Software Engineer, Waymo LLC

CONTACT

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SKILLS

- Mathematical modeling
- Numerical methods for equation solving, optimization and numerical integration
- Proficiency in several programming languages, primarily with C/C++, but also with Java, Python, ActionScript3, PHP
- Strong communication skills
- Strong problem solving abilities and creativity

EDUCATION

September 2003 ~ June 2007	Peking University, China Degree: B.S.	Major: Biotechnology
September 2010 ~ February 2012	Columbia University Degree: M.S.	Major: Computer Science GPA: 4.15 / 4
February 2012 ~ June 2016	Columbia University Degree: Ph.D. Focus: Physical simulation and physically based animation	Major: Computer Science

EMPLOYMENT HISTORY

June 2011 ~ August 2011

Research intern at Adobe Systems, Inc. Developed a palette-based image editing algorithm, supporting automatically extracting a color palette from a given image and editing the image by modifying the palette colors.

June 2012 ~ August 2012

Research intern at Adobe Systems, Inc. Developed a real time painting tool that simulates oil painting, with GPU-accelerated simulation of paint fluid dynamics at the same resolution as pixels on the screen.

August 2016 ~ Now

Software engineer at X (Alphabet), the self-driving car project (up to December 2016), which later became Waymo LLC (from January 2017). On the path planning team, in charge of trajectory-object overlap detection, generic geometric computation, and performance improvement.

SELECTED PUBLICATIONS

Fang Da, C Batty, E Grinspun. 2014. Multimaterial Mesh-based Surface Tracking. *ACM Trans. on Graphics (SIGGRAPH)* 33, 4.

Fang Da, C Batty, C Wojtan, E Grinspun. 2015. Double Bubbles Sans Toil and Trouble: Discrete Circulation-Preserving Vortex Sheets for Soap Films and Foams. *ACM Trans. on Graphics (SIGGRAPH)* 34, 4.

Fang Da, D Hahn, C Batty, C Wojtan, E Grinspun. 2016. Surface-Only Liquids. *ACM Trans. on Graphics (SIGGRAPH)* 35, 4.

Fang Da, K Jawed, J Joo, E Grinspun, P Reis. 2014. Coiling of Elastic Rods on Rigid Substrates. *PNAS* 111 (2014) 14663–14668.

K Jawed, N Khouri, **Fang Da**, E Grinspun, P Reis, 2015. Propulsion and Instability of a Flexible Helical Rod Rotating in a Viscous Fluid. *Physical Review Letters* 115, 168101.